

Patent Claims:

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1. Device for actuating a brake system (4) to accomplish a brake assist function, especially for automotive vehicles, wherein a damping effect and/or a counterforce of a brake pedal (1) can be adjusted by way of a control unit (5), and the control unit (5) reduces the damping effect and/or the counterforce of the brake pedal (1) when the brake assist function is activated, and the resulting actuating travel of the brake pedal (1) which is sensed by way of a sensor (2) of the brake pedal (1) is taken into account for determining the vehicle deceleration which is to be effected by the brake system (4).
2. Device as claimed in claim 1, characterized in that the counterforce depends on the speed of application and/or the acceleration of application of the driver's foot for braking and is adjusted to a lower amount when the speed of application and/or the acceleration of application is high.
3. Device as claimed in claim 1 or 2, characterized in that the counterforce is responsive to pedal travel and rises with an increasing actuating travel.
4. Device as claimed in at least one of claims 1 to 3, characterized in that the damping effect depends on the speed of application and/or the acceleration of application of the driver's foot for braking and is adjusted to a lower amount when the speed of application and/or the acceleration of application is high.

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5. Device for actuating a brake system to accomplish a brake assist function, especially for automotive vehicles, wherein a control unit (5) changes a brake force acting in the system depending on an actuating travel sensed by a sensor (2), an actuating speed and/or an acceleration of actuation of a brake pedal (1) when the brake assist function is activated, and the brake force acting in the system corresponds to a ratio between the determined actuating travel and a vehicle deceleration to be effected by the brake system (4).
6. Device as claimed in claim 5, characterized in that the brake force acting in the system is augmented with a rising actuating travel, a rising actuating speed and/or a rising acceleration of actuation.
7. Device as claimed in claim 5 or 6, characterized in that the brake force acting in the system is reduced continuously to a normal brake force when the actuating travel decreases.
8. Device for actuating a brake system (4) to accomplish a brake assist function, especially for automotive vehicles, wherein a control unit (5) reduces a damping effect and/or a counterforce of a brake pedal (1) when the brake assist function is activated, and the resulting actuating travel of the brake pedal (1) which is determined by way of a sensor (2) of the brake pedal (1) is taken into consideration for determining the vehicle deceleration to be effected by the brake system (4), and wherein the control unit (5) changes a brake force acting in the system depending on the sensed actuating travel, an actuating speed and/or an acceleration of actuation of the brake pedal (1) when the brake assist function is

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activated, the said brake force acting in the system corresponding to a ratio between the sensed actuating travel and the deceleration to be effected by the brake system (4).

9. Method for actuating a brake system (4) to accomplish a brake assist function, especially for automotive vehicles, wherein a control unit (5) executes the following steps:
 - reducing a damping effect and/or a counterforce of a brake pedal (1) when the brake assist function is activated, and
 - taking into account the resulting actuating travel of the brake pedal (1) which is sensed by way of a sensor (2) of the brake pedal (1) for determining the vehicle deceleration which is to be effected by the brake system.
10. Method for actuating a brake system (4) to accomplish a brake assist function, especially for automotive vehicles, wherein a control unit (5) changes a brake force acting in the system depending on an actuating travel sensed by a sensor (2), an actuating speed and/or an acceleration of actuation of a brake pedal (1) when the brake assist function is activated, and the brake force acting in the system corresponds to a ratio between the determined actuating travel and a vehicle deceleration to be effected by the brake system (4).
11. Method for actuating a brake system (4) to accomplish a brake assist function, especially for automotive vehicles, wherein a control unit (5) executes the following steps:
 - reducing a damping effect and/or a counterforce of a brake pedal (1) when the brake assist function is activated, and

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- taking into account the resulting actuating travel of the brake pedal (1) which is sensed by way of a sensor (2) of the brake pedal (1) for determining the vehicle deceleration which is to be effected by the brake system, and
- changing a brake force acting in the system depending on the actuating travel, the actuating speed and/or the acceleration of actuation of a brake pedal (1) when the brake assist function is activated, and the brake force acting in the system corresponds to a ratio between the determined actuating travel and a vehicle deceleration to be effected by the brake system (4).

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